

## Gozinta® Force Transducer

### FEATURES

- Simple press fit mounting
- Stainless steel construction
- Hermetically sealed
- Corrosion resistant
- Low temperature sensitivity
- Field installable into existing structures
- Measures tension, compression, shear, bending, torsion
- Full double bridge configuration
- Single capacity for all applications

### APPLICATIONS

- Agricultural equipment
- Rolling mill sensing
- Stamping press control
- Lift trucks
- Machine tool wear sensing
- Intrusion alarms
- Structural load measuring
- Moment sensing
- Tank weighing systems
- In-rail weighing systems

### DESCRIPTION

An innovative approach to sensor design combined with proven strain gage technology has resulted in a small, accurate stainless steel sensor with wide-ranging application possibilities. The Gozinta overcomes a



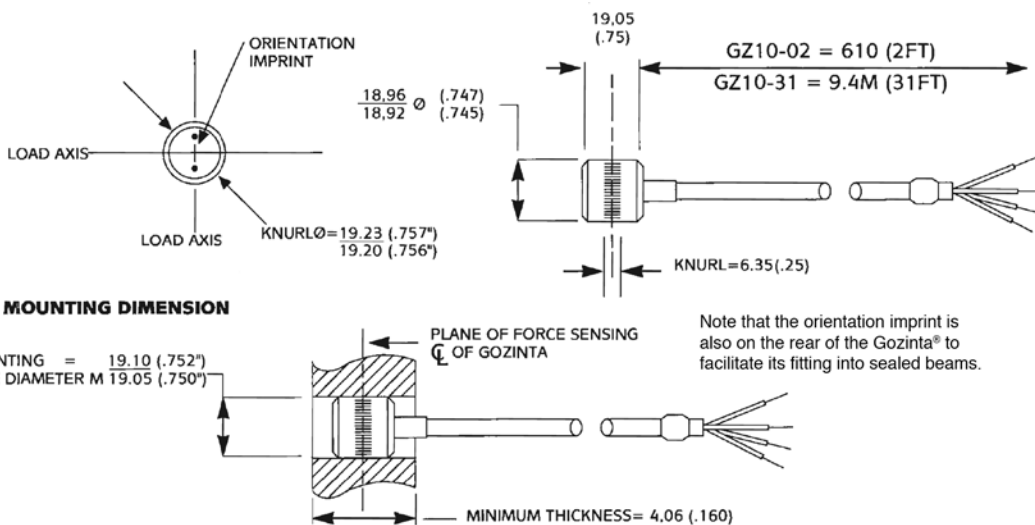
number of current sensor problems and limitations such as installation ease, size, load limit, location and operating temperature conditions. In addition, the Gozinta has unchallenged application versatility and a wide range of machines, devices or structures can use Gozinta sensors as a cost-effective, accurate solution to sensing needs.

The Gozinta sensor is mounted into the machine or structure and the sensor's output can be calibrated to meet the system needs.

As a result, the maximum load of the system is determined by the structure, rather than by the sensor. Sensitivity to thermal effects is minimal due to the Gozinta's unique patented design.

The Gozinta is configured with a full bridge circuit for low non-linearity, hysteresis and non-repeatability. A certain degree of care should be taken when positioning or locating the sensor in a structure. In addition, the number of sensors used in a structure, the amount of strain an individual Gozinta senses, and the material of the structure will affect the overall accuracy. Installation is optimized through the use of specific installation tools, supported by extensive application notes.

### OUTLINE DIMENSIONS in millimeters



### Gozinta® Force Transducer

SPECIFICATIONS		
PARAMETER	VALUE	UNIT
Excitation voltage	up to 15	VAC/VDC
Zero balance	0.00±0.05 (Prior to installation)	mV/V
Bridge configuration	Full/Double bridge	
Input resistance	700±20	Ω
Output resistance	700±20	Ω
Insulation resistance	≥5000	MΩ
Nonlinearity	±1.0	% FS <sup>1</sup>
Hysteresis	±0.05	% FS <sup>1</sup>
Non-repeatability	±0.1	% FS <sup>1</sup>
Temperature coefficient: Output	0.036	% of reading/°C
Zero	0.35 (-1° to +45°C)	% FS/°C
Temperature range: Storage	-50 to +90	°C
Temperature range: Operating	-40 to +80	°C
Maximum safe output <sup>(2)</sup>		
Tension	2.5	mV/V
Compression	2.5	mV/V
Shear	4.0	mV/V

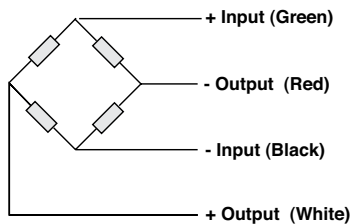
<sup>(1)</sup> Specifications for the Gozinta GZ-10 installed into a mild steel test block (90 x 38 x 305) and subjected to a tensile force of 24000N. Nominal output is 1mV/V. Other specifications are given for uninstalled GZ-10.

<sup>(2)</sup> The maximum safe output for the Gozinta based on 10<sup>4</sup> full negative to full positive operating cycles (zero to minus to plus to zero).

**Caution:** The endurance limits of the beam must be determined separately.

All specifications subject to change without notice.

#### Wiring Schematic Diagram





## Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. **To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at [vpgsensors.com](http://vpgsensors.com).

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.